

REMARKS

The present amendment is submitted in an earnest effort to advance this case to issue without delay.

1. A new formal drawing of FIGS. 1 to 3 is provided, properly labeled as replacement sheets. In addition, there is enclosed a sheet, also labeled replacement of a proposed FIG. 4 showing the monofilament in a side by side configuration of the layers as opposed to the sheath and core structure of FIG. 1. Acceptance of the replacement sheets is requested. The FIG. 4 is submitted pursuant to the Examiner's request or requirement.

2. The specification has been corrected to refer to FIG. 4. Since the side by side configuration is fully disclosed, the corrected drawing does not contain any new matter nor is there any new matter involved in the amended specification.

3. Applicant formally withdraws any objection to the restriction requirement with respect to method and article. The

claims directed to the method have been cancelled and may be introduced into a divisional application under 35 USC 121.

Applicant also withdraws any objections which may have led to confusion here and, while Applicant continues to believe that claims 3 and 4 should be examined with the group I claims 1, 2, 5, 6 and 7, should there be any problems in that respect, Applicant confirms that the Group I claims are elected.

Applicant has submitted a new claim 12 which corresponds to claim 5 written in independent form. That claim is believed to be allowable as the Examiner has indicated. Outright allowance of claim 12 is thus requested.

4. There appears to be a bit of confusion in the case and Applicant would like to attempt to eliminate it. A monofilament (see page 160 of Whittington's Dictionary of Plastics, 1st Edition) is "a single filament of indefinite length". Monofilaments are generally produced by extrusion. However, they can also be produced by spinning, e.g. from a spinneret. Spinning is defined at page 225 of the Whittington's Dictionary of Plastics as the process of forming synthetic fibers by extruding polymers. The spinneret is defined on the same page as a type of extrusion die.

It will be apparent, therefore, that a multilayer monofilament is a continuous filament which itself is made up upon manufacture, i.e. extrusion from a single orifice, of a number of layers as claim 1 defines them. Those layers can be in a core-sheath construction as illustrated in FIG. 1 and thus FIG. 1 does show the multilayer monofilament of claim 3. They can also be in a side by side structure as new FIG. 4 shows. That is the structure of claim 4. Both FIG. 1 and FIG. 4 illustrate a multilayer monofilament consisting of multiple layers that are extruded simultaneously in a single process step from a single spinning orifice, namely, the structure recited in claim 1. Accordingly, the drawing illustrates the Group I invention of which specific embodiments are found in FIGS. 1 and 4 and are recited in claims 3 and 4. FIG. 1, as originally presented, shows the multilayer monofilament of claim 1 and FIG. 4 shows the multilayer monofilament of claim 1 in the side by side structure of claim 4.

5. The claims 1, 2, 6 and 7 have been rejected and that rejection is respectfully traversed. The Tanka reference et al and Rasmussen reference disclose the subject matter of claim 1 as now set forth. Tanka et al describes the production of a composite

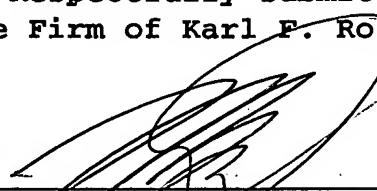
material or fiber 1 whose central layer 2 is a material of a high melting point flanked by layers 3 and 4 of low melting point. As FIGS. 4 and 5 show, first a multilayer foil or film is produced with three layers and only then is that film subdivided into strips 15. There is no monofilament, therefore, formed in a single process step from a single spinning orifice as claim 1 requires and that distinction applies to Rasmussen as well. Claim 1 is, therefore, not only not anticipated by the art but it cannot be considered obvious either and must be allowable together with the claims which depend therefrom.

Thus, Applicant believes that all of the claims as they stand in the case ought to be allowable.

Applicant believes as well that claims 6 and 7 should be allowable for the reasons which have induced the Examiner to allow claim 5, even apart from the foregoing analysis.

6. A petition for an automatic one month extension of the term is enclosed together with a PTO-2038 form applying the fee to a credit card of the undersigned.

Respectfully submitted,
The Firm of Karl F. Ross P.C.



By: Herbert Dubno, Reg. No. 19,752
Attorney for Applicant

db-

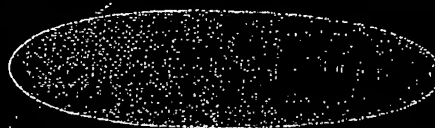
DATED: May 13, 2005
5676 Riverdale Avenue Box 900
Bronx, NY 10471-0900
Cust. No.: 535
Tel: (718) 884-6600
Fax: (718) 601-1099
Encls: Petition for Extension
PTO-2038 Form
Replacement Sheet Drawings
~~iction~~
Dictionary Pages

10/772,162

WHITTINGTON'S DICTIONARY OF PLASTICS



Sponsored by the SOCIETY OF PLASTIC ENGINEERS, INC.



WHITTINGTON'S DICTIONARY OF PLASTICS

by

Lloyd R. Whittington



Sponsored by the SOCIETY OF PLASTICS ENGINEERS, INC.

a **TECHNOMIC** publication
TECHNOMIC Publishing Co., Inc.
750 Summer St., Stamford, Conn. 06902

Monobasic. Pertaining to acids or salts which have one displaceable hydrogen atom per molecule. Such substances having two displaceable hydrogen atoms are called *dibasic*, and those with three displaceable hydrogen atoms are called *tribasic*.

Monochloroethylene. See VINYL CHLORIDE.

Monofilament. (Monofil). A single filament of indefinite length. Monofilaments are generally produced by extrusion. Their outstanding uses are in the fabrication of bristles, surgical sutures, fishing leaders, tennis-racquet strings, screen materials, ropes and nets; the finer monofilaments are woven and knitted on textile machinery.

Monomer. A relatively simple compound, usually containing carbon and of low molecular weight, which can react to form a polymer by combination with itself or with other similar molecules or compounds.

Monomeric. Pertaining to a MONOMER, which see.

Monomeric Cement. See ADHESIVES.

Montan Wax. (lignite wax). A hard, white wax derived from lignite, used as a mold lubricant.

Morphology. The study of the physical form and structure of a material. This includes a wide range of characteristics, extending from the external size and shape of large articles to dimensions of a crystal lattice.

Mottle. (n). An irregular distribution or mixture of colorants or colored materials giving a more or less distinct appearance of specks, spots, or streaks of color. Note: Mottling is often purposely achieved although it may occur accidentally due to improper mixing. (ASTM D 883-65T)

Mounting Plate. In blow molding, the plate to which the mold is attached. See also CLAMPING PLATE.

Movable Platen. The large back platen of an injection molding machine to which the back half of the mold is secured during operation. This platen is moved either by a hydraulic ram or a toggle mechanism.

Multifilaments. Manufactured fiber yarns composed of many fine continuous filaments or strands.

MVT. Abbreviation for MOISTURE VAPOR TRANSMISSION, which see.

Mw. (Weight-average molecular weight). The sum of the total weights of molecules of each size multiplied by their respective weights divided by the total weight of all molecules.

parts together by interlocking

volume of a substance to that of water at 4°C. The temperature selected is a standard. In analytical work, the term *absolute specific gravity* is used to denote the specific gravity calculated by dividing the weight of a substance by the weight of an equal volume of water at 4°C. *Specific gravity* denotes specific gravity corrected for both the permeable and impermeable volume.

substance to that of water at 4°C by one unit of a specified volume.

VISCOSITY.

viscosity is the resistance to flow of a solution of known concentration minus one. It represents the polymeric solute. See also *viscosity*.

of a material; the reciprocal of viscosity, gallons per pound, per second.

variation of colorants to match a standard instrument produces a curve which will absorb over a range of the developed compound will be. See also *COLORIMETER*.

which are absorbed or emitted by magnetic fields. Each element of minute quantities can be determined by *DE STUDIES*.

is with a fibrous appearance. They originate from a nucleus such as a chance fluctuation in density. bundles and sheaf-like aggregation in diameter from a few

SPI. Abbreviation for Society of the Plastics Industry.

Spider. (1) In a molding press, that part of an ejector mechanism which operates the ejector pins. (2) In extrusion, a term used to denote the membranes supporting a mandrel within the head and die assembly. (3) In rotational casting, the gridwork of metallic members supporting cavities in a multi-cavity mold.

Spider Lines. In blow molding, vertical marks on the parison or molded part caused by improper welding of several melt flow fronts formed by the legs with which the torpedo is fixed in the extruder head.

Spinneret. A type of extrusion die, e.g. a metal plate with many tiny holes, through which a plastic melt or solution is forced to make fine fibers and filaments. Filaments may be hardened by cooling in air, water, etc., or by chemical action.

Spinning. The process of forming synthetic fibers by extruding polymers. There are three main variations of the process: *melt spinning*, *dry spinning* and *wet spinning*. All employ extrusion nozzles with from one to many thousands of tiny orifices, called jets or spinnerets. In melt spinning, the polymer compound is heated to melt temperature. In both wet and dry spinning the polymer is dissolved in a solvent prior to extrusion. In dry spinning the extrudate is subjected to a hot atmosphere which removes the solvent by evaporation. In wet spinning the jet or spinneret is immersed in a liquid, which either diffuses the solvent or reacts with the fiber composition. The spinning operation is often followed by stretching to orient the polymer molecules.

Spin Welding. (friction welding). A process for joining thermoplastic articles of circular cross section by rotating one part in contact with the other until sufficient heat is generated by friction to cause a melt at the interface, which solidifies under pressure when rotation is stopped to weld the articles together. The process can be performed manually in a drill press with suitable chucks to hold the parts, or can be automated by adding devices for feeding, timing, controlling stroke and pressure of the press, and ejection.

Spiral Flow Test. A method for determining the flow properties of a thermoplastic or thermosetting resin based on the distance it will flow under controlled conditions of pressure and temperature along a spiral runner of constant cross section. The test is usually performed with a transfer molding press and a test mold into which the material is fed at the center of the spiral cavity.

Spiral Mold Cooling. A method of cooling injection molds or similar molds wherein the cooling medium flows through a spiral cavity in the body of a mold. In injection molds, the cooling medium is introduced at the center of the spiral, near the sprue section, as more heat is localized in this section.

Split Ring Mold. A mold in which a split cavity block is assembled in a chase to permit the forming of undercuts in a molded piece. These parts are ejected from the mold and then separated from the piece.

Spray. (n). A complete impression of an injection mold, including the molded parts with their gates and runners attached.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.